

1
2
3
4
5
6
7
8
9
10 UNITED STATES DISTRICT COURT
11 WESTERN DISTRICT OF WASHINGTON
12 AT SEATTLE

13 AMERICAN PILEDRIVING EQUIPMENT,
14 INC., a Washington corporation,

15 Plaintiff,

16 v.

17 HYDRAULIC POWER SYSTEMS, INC., a
18 Missouri corporation; AED HOLDINGS, INC.,
19 formerly known as PACIFIC AMERICAN
20 COMMERCIAL COMPANY, INC.; and PACO
21 VENTURES, LLC, a Washington limited
22 liability company,

23 Defendants.

CASE NO. C08-537RSM

ORDER ON CLAIM CONSTRUCTION

24 This patent infringement action is now before the Court for a ruling on claim construction.
25 The Court held a *Markman*¹ hearing in this case on September 25, 2009. The Court has fully considered
26 the parties' memoranda and exhibits and relevant case law, and now issues this Order on claim
27 construction.

28 ¹ *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996).

BACKGROUND

Plaintiff American Piledriving Equipment, Inc. filed this patent infringement action alleging that defendants have infringed United States Patent No. 5,355,964 (“the ‘964 patent”). This patent covers the vibratory assembly for vibratory pile driving and pulling equipment.² Vibratory pile drivers are used in construction projects as an alternative to impact pile drivers. As explained by plaintiff through demonstrative exhibits and models, vibratory pile drivers utilize paired eccentric weights (counterweights) which rotate rapidly in opposite directions to create the vibratory motion. The eccentric moment is created by uneven distribution of weight around the axis of rotation of each counterweight. The greater the unevenness of the weight distribution, the greater the eccentric moment that results. The rapid rotation creates large stress loads within the counterweights, as well as high temperatures due to friction between the moving parts.

The uneven weight distribution in the counterweight can result either from an uneven shape—one that is not radially symmetrical around a central axis—or from uneven weight distribution around a central axis, or both. The prior art described in the ‘964 patent includes three different design approaches to create the eccentric moment. One comprises a gear that is radially symmetrical, bolted to an eccentric weight that is unevenly shaped to create the eccentric moment. Such bolted counterweights are not durable, because the stress generated by the eccentric moment causes the bolts to shear or break. Another prior art resolved the bolt problem by using a cast, one-piece counterweight in which one part—the gear portion—is radially symmetrical, while the remainder—the eccentric weight portion—has an uneven shape, so that the weight is not evenly distributed around the axis of rotation. As explained in the ‘964 patent, these solid, one-piece counterweights did not have sufficient mass in the eccentric portion to generate the vibratory forces needed for pile driving. A third prior art utilizes the one-piece counterweight but increases the mass of the eccentric portion with lead, which is poured in a molten state into holes bored or cast into the unit. However, the high temperatures generated by the vibratory motion cause the lead to melt, causing an environmental hazard.

²The Court shall hereafter use the term “pile driving” to include both the pile driving and pile pulling functions.

THE '964 PATENT

The '964 patent, with a filing date of July 12, 1993, was issued on October 18, 1994. It summarizes the invention as follows:

The present invention provides a vibratory assembly used in vibratory pile driving equipment for imparting vibratory forces on a pile. The vibratory assembly has a housing that is adapted to be coupled to a shock absorbing device and to a pile holding device used in a vibratory pile driver. The housing has at least one counterweight receiving area adapted to rotatably receive at least one counterweight. The counterweight is made of a metal and has a cylindrical gear portion with an integral eccentric weight portion. The eccentric weight portion has at least one insert-receiving area formed therein. A solid insert member made of a second metal, which is different than the first metal of the counterweight, securely fits within the insert-receiving area. The second type of metal has a specific gravity greater than the specific gravity of the first metal, and a melting point temperature greater than 328.degree. C. such that the second metal will not become fluid and shift during operation of the vibratory assembly. At least one motor is operatively coupled to the counterweight and is adapted to rotate the counterweight to cause the vibratory forces.

'964 Patent, col. 2 lines 20-42. The description of one embodiment includes tungsten rods as the inserts, as tungsten is a suitable metal in terms of specific gravity and melting point. '964 Patent, col. 2 lines 43-51.

The patent recites twenty-seven claims. The Amended Complaint does not identify the claims which have allegedly been infringed by defendants, but plaintiff's claim construction brief identifies the relevant claims as claims 1-3, 5-15, and 16-18. The parties identified, in their Joint Disputed Claim Terms Chart (Dkt. # 29-2), the following terms to be construed by the Court:

(1) "eccentric weight portion"

(2) "integral"

(3) "insert-receiving area"

(4) "connected to"

1
2 The three independent claims (of those alleged to be infringed) are claims 1, 6, and 16. With the
3 disputed terms set forth in **bold**, they are fully set forth here:
4

5 **1.** A vibratory assembly for imparting a vibratory force to a pile, comprising:

6 a housing having at least one counterweight receiving means;

7
8 a counterweight rotatably carried in said receiving means for rotation about a rotational axis, said
9 counterweight having a cylindrical gear portion and an **eccentric weight portion integral** with
10 said cylindrical gear portion, said **eccentric weight portion** having at least one **insert-receiving**
11 **area** formed therein, said counterweight being made of a first metal;

12 a solid insert member securely positioned in one of said at least one **insert-receiving areas** said
13 solid insert member being made of a second metal having a specific gravity greater than the
14 specific gravity of said first metal, and a melting point temperature of 328.degree. C. or greater;
15 and

16 at least one driving means operatively connected to said counterweight and adapted to rotate said
17 counterweight about its rotational axis.

18 '964 patent, col. 9 lines 33-53.

19 **6.** A vibratory assembly for imparting a vibratory force to a pile, comprising:

20 a housing having first and second counterweight receiving means;

21
22 a first counterweight rotatably carried in said first receiving means for rotation about a rotational
23 axis, said first counterweight having a cylindrical gear portion and an **eccentric weight portion**
24 **integral** with said cylindrical gear portion, said eccentric weight portion having at least one
25 **insert-receiving area** formed therein, said first counterweight being made of a first metal;

26 a second counterweight rotatably carried in said second receiving means for rotation about a
27 rotational axis, said second counterweight having a cylindrical gear portion and an **eccentric**
28 **weight portion integral** with said cylindrical gear portion, said **eccentric weight portion**
having at least one insert-receiving area formed therein, said second counterweight being made
of said first metal;

a first solid insert member securely positioned in one of said at least one **insert-receiving area**
of said first counterweight, said first solid insert member being made of a second metal having a
specific gravity greater than the specific gravity of said first metal, and a melting point

1 temperature of 328.degree. C. or greater;

2 a second solid insert member securely positioned in one of said at least one **insert-receiving**
3 **area** of said second counterweight, said second solid insert member being made of said second
4 metal; and

5 at least one driving means operatively connected to said first and second counterweights and
6 adapted to rotate said first and second counterweights about their rotational axis.

7 ‘964 Patent, col. 9 lines 65-68; col. 10 lines 1-31.

8 **16.** A counterweight assembly for use in a vibratory pile driver and/or pile puller, comprising:

9 a cylindrical gear portion having a plurality of gear teeth around its circumference, said
10 cylindrical gear portion being made of a first metal;

11 an **eccentric weight portion connected to** said cylindrical gear portion at a position radially
12 outward of the axis of said cylindrical gear portion, said **eccentric weight portion** having at
13 least one **insert-receiving area** therein, said **eccentric weight portion** being made of said first
14 metal; and

15 at least one solid insert member having a predetermined size securely positioned in said at least
16 one **insert-receiving area** respectively, said at least one solid insert member being made of a
17 second metal having a specific gravity greater than the specific gravity of said first metal and a
18 melting point temperature of 328.degree. C. or greater.

19 ‘964 Patent, col. 11 lines 8-25.

20 The four claim terms have been construed by at least one other district court, and the parties are
21 awaiting a ruling on a Report and Recommendation in another. *American Piledriving Equipment, Inc.,*
22 *v. Bay Machinery Corporation*, Cause No. C08-1934PJH (N.D. California); *American Piledriving*
23 *Equipment, Inc., v. Equipment Corporation of America*, Cause No. 2:08-CV-895-DSC-LPL (W.D.Pa.).
24 In the case in the Northern District of California, the parties listed a fifth disputed term, “cylindrical gear
25 portion,” but subsequently agreed to the following construction of this term: “the gear portion of the
26 counterweight is a substantially cylindrical portion and has a rear face, a front face, and a plurality of
27

1 gear teeth around its perimeter.” Dkt. # 29-2, p. 10. That term is no longer in dispute. It is the duty of
2 this Court to construe the remaining four disputed terms independently of the other courts’ rulings.

3 DISCUSSION

4 A. Legal Standard

5 The claims of a patent define the limits of the patentee's statutory right to exclude. *Phillips v.*
6 *AWH Corp.*, 415 F.3d 1303, 1312 (Fed.Cir.2005). The meaning and scope of the claim language is a
7 question of law for the court. See *Markman v. Westview Instruments*, 52 F.3d 967, 976-79
8 (Fed.Cir.1995).

9 Patents are addressed to practitioners in the field of the patented invention, so a court should
10 usually construe claim language consistent with its “ordinary and customary meaning” to a person of
11 ordinary skill in the relevant art on the effective filing date of the patent application. *Phillips*, 415 F.3d
12 at 1312-13. “Such a person is deemed to read the words used in the patent documents with an
13 understanding of their meaning in the field, and to have knowledge of any special meaning and usage in
14 the field.” Id. at 1313 (quoting *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477
15 (Fed.Cir.1998)).

16 To determine the “ordinary and customary meaning” of a claim term, a court should first consult
17 the intrinsic evidence, which consists of the claims, the specification, and the prosecution history.
18 *Primos, Inc. v. Hunter's Specialties, Inc.* 451 F.3d 841, 847-48 (Fed.Cir.2006) (“In ascertaining the
19 ordinary and customary meaning of a claim term, a court's primary focus should be on the intrinsic
20 evidence of record, viz., the claims, the specification, and, if in evidence, the prosecution history.”);
21 *Kinik Co. v. Int'l Trade Commission*, 362 F.3d 1359, 1365 (Fed.Cir.2004) (“The words of patent claims
22 have the meaning and scope with which they are used in the specification and the prosecution history.”).

1 Prior art cited to the examiner during prosecution is considered part of the prosecution history. *See*
2 *Phillips*, 415 F.3d at 1317.

3 It is “[a] fundamental rule of claim construction [] that terms . . . are construed with the
4 meaning with which they are presented in the patent document. Thus claims must be construed so as to
5 be consistent with the specification . . .” *Merck & Co., Inc. v. Teva Pharms. USA, Inc.*, 347 F.3d 1367,
6 1370 (Fed.Cir.2003) (citations omitted). Therefore, the patent specification has been called the most
7 important guide to claim construction. *See, e.g., Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576,
8 1582 (“[The specification] is always highly relevant to the claim construction analysis. Usually, it is
9 dispositive.”); *Phillips*, 415 F.3d at 1315-16 (“The best source for understanding a technical term is the
10 specification from which it arose, informed, as needed, by the prosecution history.” (quoting *Multiform*
11 *Desiccants*, 133 F.3d at 1478)).

12 The specification may show that a patentee has provided its own definitions for claim terms or
13 has narrowed the scope of the claims through disclaimer. *See Phillips*, 415 F.3d at 1316. In such cases,
14 the claim is construed according to the patentee's expressed intent even if the resulting construction
15 departs from the ordinary meaning of the claim language. *Id.*; *Honeywell Int'l, Inc. v. Universal*
16 *Avionics Sys. Corp.*, 493 F.3d 1358, 1361 (Fed.Cir.2007) (“When a patentee defines a claim term, the
17 patentee's definition governs, even if it is contrary to the conventional meaning of the term.”) A patentee
18 may redefine a term either explicitly or implicitly. *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 327 F.3d
19 1364, 1367 (Fed.Cir.2003) (“The applicant may also act as his own lexicographer and use the
20 specification to implicitly or explicitly supply new meanings for terms”); *Bell Atlantic Network Servs.,*
21 *Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258, 1268 (Fed.Cir.2001) (“[T]he specification
22 may define claim terms ‘by implication’ such that the meaning may be ‘found in or ascertained by a
23
24
25
26
27

1 reading of the patent documents.’ ”).

2 Though claims should be interpreted in light of the specification, it is not generally appropriate
3 to import limitations from the specification into the claims. *North American Container, Inc. v. Plastipak*
4 *Packaging, Inc.*, 415 F.3d 1335, 1348 (Fed.Cir.2005) (“[U]nless required by the specification,
5 limitations that do not otherwise appear in the claims should not be imported into the claims.”); *Prima*
6 *Tek II, L.L.C. v. Polypap, S.A.R.L.*, 412 F.3d 1284, 1289 (Fed.Cir.2005) (“We have repeatedly made
7 clear that limitations cannot be imported from the specification into the claims.”); *SciMed Life Systems.,*
8 *Inc. v. Advanced Cardiovascular Systems, Inc.*, 242 F.3d 1337, 1340 (Fed.Cir.2001) (referring to the
9 plaintiff’s characterization of reading a limitation from the written description into the claims as “one of
10 the cardinal sins of patent law”). On the other hand, “the claims cannot be broader in scope than the
11 invention that is set forth in the specification.” *On Demand Machine v. Ingram Industries*, 442 F. 3d
12 1331, 1340 (Fed. Cir.2006). The determination of balance points between these two
13 considerations—interpreting the claims in light of the specification, on the one hand, and guarding
14 against improperly importing limitations from the specifications into the claims—turns on “how the
15 specification characterizes the claimed invention.” *Alloc, Inc., v. International Trade Commission*, 342
16 F. 3d 1361, 1370 (Fed.Cir. 2003).

17 The scope of a claim is usually not limited to the particular embodiment or embodiments
18 described in the specification. *See, e.g., Resonate Inc. v. Alteon Websystems, Inc.*, 338 F.3d 1360,
19 1364-65 (Fed.Cir.2003) (“[A] particular embodiment appearing in the written description may not be
20 read into a claim when the claim language is broader than the embodiment.”) In order to determine
21 whether the limitations of an embodiment should be applied to a claim, a court must determine whether
22 a person of skill in the art would consider the embodiments to be merely exemplary, or whether they are
23

1 intended to define the scope of the claim. *Phillips*, 415 F.3d at 1323; *Pfizer, Inc. v. Ranbaxy Labs. Ltd.*,
2 457 F.3d 1284, 1290 (Fed.Cir.2006).

3 The prosecution history, also part of the intrinsic evidence, may “inform the meaning of the
4 claim language by demonstrating how the inventor understood the invention and whether the inventor
5 limited the invention in the course of prosecution, making the claim scope narrower than it would
6 otherwise be.” *Phillips*, 415 F.3d at 1317. However, the prosecution history “often lacks the clarity of
7 the specification and thus is less useful for claim construction purposes.” *Id.*

8
9 The court may also consider extrinsic evidence. *Id.* “Extrinsic evidence is that evidence which
10 is external to the patent and file history, such as expert testimony, inventor testimony, dictionaries, and
11 technical treatises and articles.” *Vitronics*, 90 F.3d at 1584. While a district court may consult extrinsic
12 evidence as part of the claim construction analysis, such evidence is considered less reliable than the
13 intrinsic evidence. *Phillips*, 415 F.3d at 1317-19 (“[T]he court should keep in mind the flaws inherent in
14 each type of [extrinsic] evidence and assess that evidence accordingly.”) While the testimony of expert
15 witnesses may be useful in some cases, a court should disregard expert testimony that is merely
16 conclusory or that is inconsistent with the intrinsic evidence. *Id.* at 1318.

17
18 A court may use general purpose dictionaries as an aid to claim construction, so long as the
19 dictionary definition relied upon does not contradict the definition indicated by the intrinsic evidence.
20
21 *See id.* at 1322-23 (stating that courts “may . . . rely on dictionary definitions when construing claim
22 terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a
23 reading of the patent documents.”). The Federal Circuit has specifically noted that dictionaries may be
24 useful in the construction of ordinary, non-technical terms, which often involves “little more than the
25 application of the widely accepted meaning of commonly understood words.” *Id.* at 1314; *see also*,
26
27

1 *Agfa Corp. v. Creo Prods. Inc.*, 451 F.3d 1366, 1376 (Fed.Cir.2006) (affirming district court
2 construction of “stack” based on dictionary definition); *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d
3 1299, 1306 (Fed.Cir.2006) (using dictionary definition in construction of claim term “geometry”).
4 However, excessive reliance on dictionary definitions is improper because the “ordinary meaning” of a
5 claim term is not the abstract dictionary definition, but the “meaning to the ordinary artisan after
6 reading the entire patent.” *Phillips*, 415 F.3d at 1321.
7

8 Despite the guidelines outlined above, “there is no magic formula or catechism for conducting
9 claim construction,” and a court is not “barred from considering any particular sources or required to
10 analyze sources in any specific sequence, as long as those sources are not used to contradict claim
11 meaning that is unambiguous in light of the intrinsic evidence.” *Id.* at 1324. Instead “what matters is for
12 the court to attach the appropriate weight . . . to those sources in light of the statutes and policies that
13 inform patent law.” *Id.* The terms shall be construed as having their “ordinary and customary meaning”
14 to a person of ordinary skill in the relevant art on the effective filing date of the patent application.
15 *Phillips*, 415 F.3d at 1312-13. As noted above, the effective filing date is July 12, 1993.
16
17

18 **B. Analysis**

19 **(1) eccentric weight portion**

20
21 As shown above, this term is asserted in independent claims 1, 6, and 16; it is also asserted in
22 claims 3 and 11. Plaintiff proposes the following construction for this term:

23 **Eccentric weight portion** — is that portion of the counterweight that creates the eccentric
24 moment of the counterweight.

25 The portion is part of the whole counter weight, but need not be distinct from the cylindrical
26 portion.

27 The eccentric weight portion has one or more areas for receiving an insert.

1 Joint Disputed Claim Chart, Dkt. # 29-2, p. 1. Defendants propose the following construction:

2
3 **Eccentric weight portion** — The mass that extends forward from the front face of the bottom
4 portion of the gear portion of the counterweight such that the counterweight has more weight at
its bottom portion than its top portion.

5 *Id.*

6
7 The term is first used in claim 1, describing a counterweight as “having a cylindrical gear portion
8 and an **eccentric weight portion** integral with said cylindrical gear portion, said **eccentric weight**
9 **portion** having at least one insert-receiving area formed therein . . . ” ‘964 patent, col. 9 lines 39-43.

10 Although not defined in the claims, the term is used consistently in subsequent claims, each time
11 describing a portion of the counterweight. There is no expressed intent to give the term a different
12 meaning in other claims.
13

14 At the *Markman* hearing, both parties referred to the specification to define the term. However,
15 each side cited a different area of the specification. Plaintiff referred the Court to the introductory lines
16 of the detailed description of the invention, wherein it states that
17

18 The vibratory assembly generates substantially vertical vibratory forces by rotating at high
19 speeds two counterweights within a housing. Each counterweight has a gear portion and an
20 eccentric weight portion that is integral to the gear portion. The eccentric weight portion has
21 dense, solid, metal inserts 45 mounted therein to increase the mass of the eccentric weight
rotational axis.

22
23 ‘964 patent, col. 3 lines 41-51 (numbered references to drawings omitted). Defendants referred the
24 Court to language in the specification that describes a shape and location for the eccentric weight
25 portion:
26

27 As best seen in FIGS. 3A and 3B, the gear portion of the counterweight is substantially

1 cylindrical and has a rear face, a front face, and a plurality of gear teeth around its perimeter. The
2 eccentric weight portion of the counterweight, which is formed integral with the gear portion,
3 extends forward from the front face of the gear portion. The gear portion has a weight
4 distribution with less weight provided by a top portion and more weight provided by a bottom
5 portion as a result of the eccentric weight portion being connected thereto. In the preferred
6 embodiment, the eccentric weight portion has a substantially semi-cylindrical portion, and the
7 bottom portion constitutes over one-half of the area of gear portion. Accordingly, the
8 counterweight has a large mass of material integral to and projecting from the bottom portion of
9 the gear portion, thereby forming a counterweight having a center of gravity located radially
10 outward from the rotational axis of the gear portion.

11 ‘964 patent, col. 5 lines 17-36.

12 Defendants contend that since language defining the location of the eccentric weight portion
13 precedes the description of the preferred embodiment, it is broader in application than the preferred
14 embodiment, and defines the location of the eccentric weight portion for all embodiments of the
15 invention. However, the Court finds that adopting defendants’ proposal would require that a limitation
16 expressed in the specification be imported into the claims, where it does not appear. While the
17 drawings and detailed descriptions thereof are helpful in understanding the preferred embodiment of the
18 invention, they do not express the only embodiment. The claims themselves do not at any point suggest
19 or limit the location of the eccentric gear portion within the counterweight, other than to specify that it is
20 “integral with the cylindrical gear portion” (claims 1, 6, 11, 19, 21, 27). One claim describes the
21 eccentric weight portion as “connected to said cylindrical gear portion at a position radially outward of
22 the axis of said cylindrical gear portion” (claim 16), but this language does not specify whether it
23 extends outward from the front or the rear of the cylindrical gear portion. Two claims describe a
24 counterweight in which the eccentric weight portion and cylindrical gear portion are “coaxially aligned”
25 so that an aperture can extend through both (claims 21, 27), but again this does not limit the location of
26 the eccentric weight portion to one side or the other of the cylindrical gear portion.

27 The Court therefore finds, after reviewing the claim language and the specification, that the

1 phrase **eccentric weight portion** should be construed to mean “**that portion of the counterweight that**
2 **creates the eccentric moment of the counterweight by having unbalanced weight offset from the**
3 **axis of rotation. The eccentric weight portion has one or more inset receiving areas.**”

4 (2) **integral**

5 As demonstrated in the claims set forth above, the term “**integral**” appears throughout the claims
6 as describing the relation between the cylindrical gear portion and the eccentric weight portion of the
7 counterweight: the eccentric weight portion in each instance is described as “integral with the
8 cylindrical gear portion.” Claims 1, 6, 11, 19, 21, 27. Plaintiff proposes that the term be construed to
9 mean “composed of portions, parts, or pieces that together constitute the whole” Joint Disputed Claim
10 Terms Chart, Dkt. # 29-2, p. 3. Defendants proposed that it be construed to mean “formed or cast of one
11 piece.” *Id.* Neither party suggests that the term have a different meaning in any claim; the usage is
12 consistent throughout the claims.

13 In support of its proposed construction, plaintiff refers the Court to an examiner’s comment in
14 the reexamination action, wherein the examiner stated that “[n]othing in the specification of the subject
15 patent states that ‘integral’ means ‘one-piece’.” *Id.*, p. 4. However, this examiner’s comment is not
16 determinative of the question. More significance is placed on the patentee’s response during the
17 reexamination, in which it was represented that claims 1, 6, and 11 recite that the eccentric gear portion
18 and cylindrical gear portion are “integral,” meaning they are components of a one-piece counterweight.
19 Patentee’s Remarks, Dkt. # 31, Exhibit A, p. 6. The patentee cited this one-piece or “integral” nature of
20 the eccentric weight portion as “unquestionably” distinguishing the invention from the prior art of
21 Hornstein. *Id.* Further, as defendants contend, the patent itself criticized two-piece counterweights
22 with the eccentric weight and cylindrical gear portion bolted together. This criticism may be deemed a
23

1 disavowal of that aspect of the prior art. '964 patent, col 1, lines 39-45.

2 The term is not defined in the claims, but the word **integral** has an ordinary meaning which may
3 be found in the dictionary. For example, the adjective is defined in the Merriam-Webster New
4 Collegiate Dictionary³ as follows:

5 **integral:**

6
7 1 a : essential to completeness : constituent <an integral part of the curriculum>

8 b (1) : being, containing, or relating to one or more mathematical integers (2) : relating to or
concerned with mathematical integrals or integration

9 c : formed as a unit with another part <a seat with integral headrest>

10 2 : composed of integral parts

11 3 : lacking nothing essential : entire

12 Found at <http://www.merriam-webster.com/>, October 11, 2009.

13
14 Nothing in the claims suggests that a different meaning was intended. Indeed, the use of the
15 term throughout the claims is consistent with the meaning “formed as a unit with another part.” Certain
16 claims themselves describe “forming” the counterweight with a first metal (i.e., one metal) (claim 21),
17 and “casting” the counterweight with a first metal (claim 27), in each instance creating a counterweight
18 with the eccentric gear portion integral with the cylindrical gear portion.

19 The specification, in describing the preferred embodiment of the invention, defines the
20 counterweight as a “one-piece component that is cast with a predetermined metal.” ‘964 patent, col. 5,
21 lines 49-52. Nowhere in the specification is any embodiment other than a one-piece unit suggested.
22 The only variation or modification mentioned is the use of a metal other than tungsten for the rods
23 inserted into the counterweight. ‘964 patent, col 9, lines 22-30.

24
25
26
27 ³The Court has consulted both the Tenth Edition (1998) and the on-line edition and found that
they do not differ.

1 The Court finds that “the specification read as a whole suggests that the very character of the
2 invention requires the limitation [to a one-piece unit] to be a part of every embodiment.” *Alloc*, 342 F.
3 3d at 1370. This finding recognizes both the disavowal of two-part counterweights found in the prior
4 art discussion, and the entire discussion of the preferred embodiment. It is proper in this instance to
5 limit the claims to the scope of the invention as it is described in the specification, because “the claims
6 cannot be of broader scope than the invention that is set forth in the specification. *On Demand Machine*,
7 442. F. 3d at 1340.

9 The Federal Circuit court in *Phillips* clarified the law regarding claim construction and resolved
10 prior conflicts within the Federal Circuit regarding the importance of specifications in claim
11 construction. *On Demand Machine*, 442 F. 3d at 1337, *citing Phillips v. AWH Corp.*, 415 F. 3d 1310.
12 The court in *Phillips*, resolving the conflict, “stressed the dominance of the specification in
13 understanding the scope and defining the limits of the terms used in the claims.” *Id.* at 1338, *citing*
14 *Phillips*, 415 F. 3d at 1313. In recognizing the dominant role of the specification in defining the limits
15 of the claimed invention, the Court in this analysis of the term **integral** is not improperly importing
16 limitations from the specification into the claims, but relying on the law of claims construction as it has
17 been clarified in *Phillips*. *Id.* As noted there, the patent statute requires that the specification “describe
18 the claimed invention in ‘full, clear, concise, and exact terms.’” *Id.* at 1316; citing 35 U.S.C. 112 ¶ 1.
19 The counterweight described throughout the specification is a one-piece unit, formed or cast of a single
20 metal.
21
22

23 The Court concludes that defendants’ proposed construction of the term **integral** is consistent
24 with the usage in the claims and the specification. The Court therefore construes the term to mean
25 “**formed or cast of one piece.**”
26
27

1 (3) **insert-receiving area**

2 Plaintiff proposes that this term be construed to mean “a region of the eccentric weight portion
3 that is capable of receiving an insert.” Joint Disputed Claim Terms Chart, Dkt. # 29-2, p. 7.
4 Defendants’ proposed construction is “the area in the portion of the counterweight that projects from the
5 gear portion that is shaped to receive an insert.” *Id.*
6

7 The dispute regarding construction of this term is generated by a dispute over the location of the
8 eccentric gear portion and the cylindrical gear portion. Defendant contends that the insert-receiving area
9 is in the portion of the counterweight that extends forward from the front face of the cylindrical gear
10 portion. Defendants’ Opening Claims Construction Brief, Dkt. # 31, p. 21. Defendants’ argument is
11 based on their contention that the eccentric gear portion and the cylindrical portion are separate and
12 discrete areas of the counterweight. Plaintiff, on the other hand, directs the Court’s attention to the
13 preferred embodiment described in the specifications, and the accompanying drawings which show the
14 bores which constitute the inset-receiving area as extending fully through the cylindrical gear portion.
15 ‘964 patent, Fig. 3B and col 5, lines 61-65.
16

17 This dispute has been resolved by the Court’s construction of the term “eccentric weight
18 portion,” which declined to adopt defendants’ proposal to assign a specific location to the eccentric gear
19 portion, as well as the construction of the term “integral” as meaning a one-piece unit. Considering the
20 term as it is used in the claims and the specifications, together with the Court’s construction of the other
21 terms, the Court declines to adopt defendants’ proposed construction which would limit the location of
22 the inset-receiving area. Plaintiff’s proposed construction, however, is vague in that it does not clarify
23 that the “inset-receiving area” is a bore through the counterweight. The Court therefore adopts the
24 following construction for this term: **“a bore formed in the eccentric weight portion of the**
25
26
27

1 **counterweight that is capable of receiving an insert.”**

2 (4) **connected to**

3 This term appears in claims 1, 6, 11, and 16. However, in claims 1, 6, and 11 the term is used in
4 the phrase “operatively connected to” to describe the drive assembly external to the counterweight.
5 That is, the vibratory assembly is described in claim 1 as comprising, in addition to the counterweight,
6 “at least one driving means operatively connected to said counterweight and adapted to rotate said
7 counterweight about its rotational axis.” ‘964 patent, col. 9 lines 51-53. Claims 6 and 11 use similar
8 language. ‘964 patent, col 10 lines 28-31, 64-66. The parties have not addressed this “operationally
9 connected to” language in their briefs and arguments. It appears that their dispute revolves around the
10 term “connected to” as it appears in claim 16, reciting “an eccentric gear portion **connected to** said
11 cylindrical gear portion at a position radially outward of the axis of said cylindrical gear portion . . . ”
12 ‘964 patent, col. 11 lines 13-15.

13
14
15 The dispute surrounding this term, as with the term above, has been resolved by the Court’s
16 construction of the term “integral.” Independent claim 16, and the following dependent claims, recite an
17 invention in which the eccentric gear portion projects “radially outward” from the cylindrical gear
18 portion. The “connected to” term, used in place of “integral” as found in disputed independent claims 1,
19 6, and 11, describes a counterweight in which the eccentric gear portion and the cylindrical gear portion
20 are separate and discrete, with no overlapping area.

21
22 Plaintiffs propose that the Court adopt the construction “joined together, united or linked.” Joint
23 Disputed Claim Terms Chart, Dkt. # 29-2, p. 8. Defendants propose the same language, with the
24 addition that “connected to” specifically excludes bolting, based on the patentee’s recitation of prior art
25 which included bolting. The Court finds no basis for including the additional language, and construes
26

1 the term “**connected to**” to mean “**joined together, united or linked.**”

2
3 CONCLUSION

4 The Court has now construed the terms in the patents in suit, reading the claims “in view of the
5 specification, of which they are a part.” *SciMed Life Systems*, 242 F. 3d at 1340, (*quoting Markman*, 52
6 F. 3d at 979-990. The disputed terms are construed as follows:

7
8 (1) “eccentric weight portion” means “**that portion of the counterweight that creates the**
9 **eccentric moment of the counterweight by having unbalanced weight offset from the axis of**
10 **rotation. The eccentric weight portion has one or more inset receiving areas.**”

11
12 (2) “integral” means “**formed or cast of one piece.**”

13 (3) “insert-receiving area” means “**a bore formed in the eccentric weight portion of the**
14 **counterweight that is capable of receiving an insert.**”

15 (4) “connected to” means “**joined together, united or linked.**”

16 DATED this 13 day of October 2009.

17
18
19 

20 RICARDO S. MARTINEZ
21 UNITED STATES DISTRICT JUDGE
22
23
24
25
26
27